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EXAMINER				
DOWE, KATHERINE MARIE				
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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/820,330  
Filing Date: April 07, 2004  
Appellant(s): SCHELLER ET AL.

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Joseph Rolnicki  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed February 1, 2010 appealing from the Office  
Action mailed September 23, 2009.

**(1) Real Party in Interest**

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The following is a list of claims that are rejected and pending in the application:

25-42, 47, 48, 51, and 52

**(4) Status of Amendments After Final**

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

**(5) Summary of Claimed Subject Matter**

The examiner has no comment on the summary of claimed subject matter contained in the brief.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the

subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

**(7) Claims Appendix**

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

**(8) Evidence Relied Upon**

6,616,683	TOTH et al.	9-2003
4,938,214	SPECHT et al.	7-1990

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 25-42, 47, 48, 51, and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toth et al. (US 6,616,683, hereinafter "Toth") in view of Specht et al. (US 4,938,214, hereinafter "Specht"). Toth discloses the invention substantially as claimed including a microsurgical instrument comprising an elongate rod (14-1) having opposite proximal and distal ends. A slot (14-3) in the distal end of the rod forms a pair of resilient spring arms (14-2) projecting from the rod, with a pair of opposed, operative microsurgical surfaces on the spring arms. The pair of operative microsurgical surfaces may be interpreted as a pair of forcep jaws. The slot, the pair of spring arms, and the pair of operative microsurgical surfaces are formed by electric discharge machining in a single piece of material (col 3, ln 47-58; Figures 3A-3B). The Examiner notes the filler material may be omitted from the forcep jaws (col 4, ln 25-26; Figure 6) and thus the

operative microsurgical surface (14-2") may be interpreted as being formed solely by electric discharge machining.

Regarding claims 36 and 51, the operative microsurgical surfaces may alternatively be interpreted as scissor blades. The Examiner notes the claims do not provide a structural difference between the forcep jaws and scissor blades.

However, Toth does not disclose the operative microsurgical surfaces comprise serrations. Specht discloses a similar microsurgical instrument (col 6, ln 32-47) with an elongate rod and resilient spring arms (312, 314) having operative microsurgical surfaces (312a, 314a). Specht teaches "in a preferred embodiment, the mating surfaces of the working area are provided with a series of serrations extending, with reference to FIG. 14, into the plane of the paper" (col 16, ln 67 – col 17, ln 2). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Toth such that the operative microsurgical surfaces comprised serrations to improve the gripping function of the surfaces. Furthermore, it is obvious to make features of microsurgical instruments as small as possible such that the device is useful in a microsurgical environment. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the serrations such that the width between adjacent peaks of the serrations was within the range of 0.0015 to 0.0039 of an inch, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering optimum or workable ranges involves only routine skill in the art. See *In re Aller*, 105 USPQ 233.

Regarding claims 28, 48, and 52, the claimed phrases "the series of serrations being a wire electric discharge machined surface" and "the pair of forcep jaws/scissor blades opposed serrated surfaces having been formed solely by electric discharge machining" are being interpreted as a product by process limitation; that is, the serrations are made by wire electric discharge machining. As set forth in MPEP 2113, product by process limitations are NOT limited to the manipulations of the recited steps, only to the structure implied by the steps. Once a product appearing to be substantially the same or similar is found, a 35 U.S.C. 102/103 rejection may be made and the burden is shifted to the appellant to show an unobvious difference. See MPEP 2113. Alternatively, Toth discloses the device is formed of wire electric discharge machining col 3, ln 47-58; Figures 3A-3B). Therefore, it would have been obvious to one of ordinary skill in the art to additionally form the series of serrations from wire electric discharge machining (EDM), as such a manufacturing method is well known in the art of microsurgical instruments.

#### **(10) Response to Argument**

Appellant argues Toth does not teach operative microsurgical surfaces that are formed solely by electric discharge machining. The examiner respectfully disagrees. Toth clearly discloses the jaws of the microsurgical instrument are formed solely by electric discharge machining (col 3, ln 47-58; Figs 3a and 3b). The "operative microsurgical surfaces" are formed solely by electric discharge machining since the operative microsurgical surfaces are interpreted as comprising the inner surface of the

jaws/resilient spring arms (14-2) defined by the slot (14-3). Appellant argues it is the filler material (14-4) that provides the operative surface of the forceps. However, Toth teaches, "as shown in Fig. 6, the filler material may be omitted from the forceps jaws 14-2" (col 4, ll 25-26). Appellant acknowledges the filler material may be omitted, but still contends Toth has not disclosed the microsurgical surfaces are formed by electric discharge machining. The examiner respectfully reiterates the slot forming the two jaws (Fig 6) is cut using electric discharge machining (col 4, ll 25-26). Furthermore, when the filler material is omitted, the inner surface of the jaws (defined by the slot) must serve as the operative surface if the forceps are used in the conventional manner of gripping material within the jaws.

Appellant additionally argues Toth's teaching that the "resulting opposed cross-sectionally arcuate jaw sections may be bent and/or further shaped to achieve the desired final jaw configuration (col 1, ll 62-64) teaches away from the microsurgical surfaces being formed solely of electric discharge machining. The examiner respectfully disagrees. The jaw sections *may* be further shaped, but the jaw surfaces, and thus the operative microsurgical surfaces, are still formed by electric discharge machining. It is noted that the features upon which appellant relies (i.e., *flat* microsurgical surfaces formed solely by electric discharge machining without subsequent shaping) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to appellant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the appellant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Appellant argues the combination of Toth and Specht does not teach serrations having a width dimension between adjacent peaks smaller than 0.007 of an inch (or 0.178 millimeters). Appellant argues the small range claimed is outside any range of serration dimensions disclosed in the prior art and thus the holding of *In Re Aller* is not applicable. The examiner respectfully disagrees. Specht teaches a microsurgical instrument including forceps *adapted for use in microsurgery*, wherein the operative microsurgical surfaces are provided with serrations (col 4, ll 31-37; col 16, ln 67 – col 17, ln 2). Specht additionally teaches,

“the present invention is directed to instruments of very high precision, much higher than that required for standard surgical instruments...The quality of tools used in microsurgery is also subject to rigorous demands by virtue of the small sizes and delicate composition of the surgical arteries and body parts manipulated by those tools. Blood vessels cut, dilated, grasped and sutured are typically in the range of 0.5 mm in diameter. Thread employed in suturing is finer than human hair... Curved needles are as fine as a baby's eyelash having a diameter of about 70 microns, i.e. 0.070 millimeter. If the microsurgical needle is grasped and is bent by the forceps, then it is no longer useful. Further, the forceps is used to grasp the fine thread to assist in tying knots for a stitch.” See col 2, ll 2-23.



Thus, it is clear microsurgical forceps must have serrations sized to accommodate curved needles as small as 70 microns in diameter, which is smaller than the claimed upper limit width dimension of 0.007 of an inch. If the width between adjacent peaks of the serrations is greater than the diameter of the object to be grasped, the entire object would fall between the serrations and the serrations would not function to improve the grip of the forceps. It is clear the combination of Toth and Specht teach the general limitations of the claim, i.e. operative microsurgical surfaces of forceps having serrations, wherein the forceps are designed for use in microsurgery that requires extremely small dimensions. Therefore, the holdings of *In Re Aller* are applicable.

Regarding dependent claims 28, 48, and 52, Appellant argues the claim limitations cannot be interpreted as product by process limitations because "the claims are not describing method steps, but are describing how serrated edges had been formed" (see Appeal Brief, pg 8). The examiner notes how serrated edges had been formed is clearly a product by process limitation since the product (serrated edges) is formed/made by a particular process (electric discharge machining). Appellant has not provided evidence showing an unobvious difference between the claimed product and the product appearing to be substantially the same or similar (i.e. the combination of Toth and Specht) to the claimed product. Mere arguments can not take the place of evidence. *In re Walters*, 168 F.2d 79,80, 77 USPQ 609,610 (CCPA 1948); *In re Cole*, 326 F.2d. 769,773, 140 USPQ 230,233 (CCPA 1964); *In re Schulze*, 346 F.2d 600,602, 145 USPQ 716,718 (CCPA 1965); *In re Lindner*, 457 F.2d 506,508, 173 USPQ 356,358 (CCPA 1972); *In re Pearson*, 494 F.2d 1399,1405, 181 USPQ 641,646 (CCPA 1974);

Art Unit: 3734

*Meitzner v. Mindick*, 549 F.2d 775,782, 193 USPQ 17,22 (CCPA), cert. Denied, 434

U.S. 854 (1977); *In re DeBlauwe*, 736 F.2d 699,705, 222 USPQ 191,196 (Fed. Cir.

1984).

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Katherine Dowe  
April 14, 2010  
/K. M. D./  
Examiner, Art Unit 3734

Conferees:

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